



INCIDENT NAME

Big Bar Landslide

INCIDENT LOCATION

North of Big Bar on the Fraser River

DATE PREPARED

July 19, 2019



Fisheries and Oceans
Canada

Pêches et Océans
Canada



SCALER UPDATES

Scaler crews continue to work on the face of the cliff, where the rock slide took place, removing dangerous rocks. This process ensures that the rocks will be safely removed in a controlled environment, to prevent another landslide from occurring and before personnel can work safely below.

Scaler crews are also beginning to prep a smaller remaining area on the face of the landslide for rock blasting. This preparation consists of carefully determining the placement of holes in the rock to maintain the stability of the larger rock face. The work will remove a specific area of rock located on the face that is dangerously overhanging the river. This section of rock can't be removed by scaler crews with hand tools. The main objective of detaching this rock from the face is to remove unstable and hazardous rocks in a time-efficient manner to ensure safe working conditions at the landslide site. The controlled detonations that will take place are non-toxic and are strategically placed to limit the size of rock that will detach, in order to prevent harming any fish that may be below.



Figure 1. Scaler crews working on the cliff face as a helicopter passes.

OTHER UPDATES

- Pickets are being inserted into the river bottom that will direct fish through a newly-built fish weir and into an off-channel holding pond, downstream of the landslide area. A fish weir is a structure, as shown in figure two, that allows fish to swim into but not out of, essentially acting as a fish trap. This setup will allow fish to enter the calm waters of the pond where the fish will then be collected and moved beyond the partial blockage upstream. The purpose of this operation is to displace the fish further upstream in a safe spot, away from the landslide, where they will be able to continue their migration and spawning journey.
- Fish are being tagged downstream in order for experts to monitor how many fish are passing through the partial blockage by a hydroacoustic monitoring station located upstream. Fish are being captured for tagging by on-shore anglers and dip netters. This monitoring provides the environmental experts crucial information on the survival success rate of the fish once they have reached their terminal spawning grounds.
- Hydroacoustic monitoring is also being used to track the amount of fish that are able to pass through the partial blockage. Experts use this device to continually track the location of fish through acoustic sound vibrations once the fish reach a predetermined target. The purpose of this tracking system is to monitor how many fish are successful in their migration past the partial blockage.



Figure 2. The fish weir being built for the holding pond.

